IN THE CLAIMS

Please substitute claims 1-16 with the following:

1. (Original) A signal processing apparatus, comprising:

a transforming means for transforming a plurality of first digital signals having mutually different sampling phases to a plurality of second digital signals in a frequency domain;

a memory means for storing a plurality of complex numbers corresponding to said sampling phases; and

a processing means for multiplying said plurality of second digital signals and said plurality of complex numbers corresponding to the plurality of second digital signals and adding the multiplied results to generate a third digital signal free from aliasing components.

2. (Original) A signal processing apparatus as set forth in claim 1, further comprising:

a phase shift means for shifting the phase of said first digital signals or said second digital signals by exactly a predetermined phase.

3. (Withdrawn) A signal processing apparatus, comprising:

a phase shift means for shifting the phase of a plurality of first digital signals having mutually different sampling phases to generate second digital signals;

a memory means for storing a plurality of real numbers indicating real parts and imaginary parts of a plurality of predetermined complex numbers corresponding to said sampling phases;

a processing means for multiplying said first digital signals with real numbers indicating said real parts corresponding to the first digital signals to obtain first multiplied results,

multiplying said second digital signals corresponding to said first digital signals with real numbers indicating said imaginary parts corresponding to the second digital signals to obtain second multiplied results, and adding said first multiplied results and said second multiplied results to generate third digital signals free of aliasing components.

4. (Original) An image processing apparatus, comprising:

an image input means for generating a plurality of first image signals having mutually different sampling phases in accordance with imaging results;

a transforming means for transforming the first image signals to a plurality of second image signals in a frequency domain;

a memory means for storing a plurality of complex numbers corresponding to said sampling phases;

a processing means for multiplying said plurality of second image signals with said plurality of complex numbers corresponding to the plurality of second image signals and adding the multiplied results to generate third image signals free from aliasing components.

5. (Original) An image processing apparatus as set forth in claim 4, wherein:

said image input means forms an image of a plurality of color lights passed through a single-plate type color filter on corresponding pixels among a plurality of pixels arranged in a matrix two-dimensionally to generate said first image signals comprised by color data of said plurality of colors; and

said processing means performs said multiplication and said addition for every color data of said plurality of color data to generate a plurality of fourth image signals corresponding to said

plurality of colors and generates said third image signals by using the plurality of fourth image signals.

6. (Original) An image processing apparatus as set forth in claim 5, wherein:

said sampling phase is determined for a predetermined one color among said plurality of colors in order that a sampling pattern of color data of the color included in said plurality of first image signals and a sampling pattern of color data included in said fourth image signals of the color become similar.

7. (Original) An image processing apparatus as set forth in claim 4, wherein said processing means comprises:

a spatial shift means for spatially shifting said second image signals in accordance with said sampling phases;

a basic spectrum calculation means for multiplying said spatially shifted plurality of second image signals with said plurality of complex numbers corresponding to said plurality of second image signals and adding the multiplied results to calculate a basic spectrum free from aliasing components; and

an inverse transforming means for transforming said basic spectrum from a frequency domain to a time domain to generate said third image signals.

8. (Original) An image processing apparatus as set forth in claim 4, further comprising:

a drive means for moving said image input means physically, optically, or electrically so that said imaging means can generate a plurality of image signals having mutually different sampling phases in accordance with the imaging results.

9. (Original) An image processing apparatus as set forth in claim 5, wherein:

said image input means is a single-element CCD image sensor and

said color filter is a primary color filter or a color compensation filter.

10. (Withdrawn) An image processing apparatus, comprising:

an image input means for receiving as input a plurality of first image signals having mutually different sampling phases in accordance with imaging results;

a phase shift means for shifting the phase of said plurality of first digital signals to generate second digital signals;

a memory means for storing a plurality of real numbers respectively indicating real parts and imaginary parts of a plurality of predetermined complex numbers corresponding to said sampling phases;

a processing means for multiplying said first digital signals with real numbers indicating said real parts corresponding to the first digital signals to obtain first multiplied results, multiplying said second digital signals corresponding to said first digital signals with real numbers indicating said imaginary parts corresponding to the second digital signals to obtain second multiplied results, and adding said first multiplied results and said second multiplied results to generate third digital signals free from aliasing components.

11. (Original) A signal processing method comprising the steps of:

transforming a plurality of first digital signals having mutually different sampling phases to domain a plurality of second digital signals in a frequency domain;

multiplying said plurality of second digital signals with a plurality of complex numbers corresponding to the plurality of second digital signals; and

adding the multiplied results to generate third digital signals free from aliasing components.

12. (Withdrawn) A signal processing method using a plurality of real numbers indicating real parts and imaginary parts of a predetermined plurality of complex numbers corresponding to sampling phases, comprising the steps of:

shifting a plurality of first digital signals having mutually different sampling phases by predetermined phases to generate second digital signals;

multiplying said first digital signals with real numbers indicating said real parts corresponding to the first digital signals to generate first multiplied results;

multiplying said second digital signals corresponding to said first digital signals with real numbers indicating said imaginary parts corresponding to the second digital signal to generate second multiplied results; and

adding said first multiplied results and said second multiplied results to generate third digital signals free of aliasing components.

13. (Original) An image processing method comprising the steps of:

generating a plurality of first image signals having mutually different sampling phases in accordance with imaging results;

transforming the first image signals to a plurality of second image signals in a frequency domain; and

multiplying said plurality of second image signals with a plurality of complex numbers corresponding to the plurality of second image signals and adding the multiplied results to generate third image signals free from aliasing components.

14. (Original) An image processing method as set forth in claim 13, further comprising the steps of:

forming an image of a plurality of color lights passing through a single-plate type color filter on corresponding pixels among a plurality of pixels arranged in a matrix two-dimensionally to generate said first image signals comprised by color data of said plurality of colors and

performing said multiplication and said addition for every color data of said plurality of colors to generate a plurality of fourth image signals corresponding to said plurality of colors and generate said third image signals by using the plurality of fourth image signals.

15. (Original) An image processing method as set forth in claim 14, further comprising the steps of determining said sampling phase for a predetermined one color among said plurality of colors so that a sampling pattern of color data of the color included in said plurality of first image signals and a sampling pattern of color data included in said fourth image signals of the color become similar.

16. (Withdrawn) An image processing method using a plurality of real numbers prepared in advance indicating real parts and imaginary parts of a predetermined plurality of complex numbers corresponding to sampling phases, comprising the steps of:

generating a plurality of first image signals having mutually different sampling phases in accordance with imaging results;

shifting by a predetermined phase said plurality of first digital signals to generate second digital signals;

multiplying said first digital signals with real numbers indicating said real parts corresponding to the first digital signals to generate first multiplied results;

multiplying said second digital signals corresponding to said first digital signals with real numbers indicating said imaginary parts corresponding to the second digital signals to generate second multiplied results; and

adding said first multiplied results and said second multiplied results to generate third digital signals free from aliasing components.